

Serial No. 10/803,087  
Docket No. PHCF-04015  
HIR.096

**AMENDMENTS TO THE CLAIMS:**

1. (Currently amended) A semiconductor film formation device, comprising:

a reaction vessel that includes a gas flow path to allow a source gas to pass through,  
~~and a substrate mount site upon which to mount a substrate being provided in the gas flow~~  
~~path to mount a substrate inside the reaction vessel along a side thereof;~~

a heater that is disposed outside of the reaction vessel on the side along which and  
~~close to the substrate mount site inside the reaction vessel is mounted;~~

a cooling device that is disposed outside of the reaction vessel and on a side  
substantially directly opposite to the heater, said cooling device to control controlling an  
internal temperature of the reaction vessel in a first section of the gas flow path where the  
substrate mount is located; and

a thermal conductivity adjusting member that is disposed between the reaction vessel  
and the cooling device,

wherein the thermal conductivity adjusting member ~~comprises a~~ allows the first section  
along the gas flow path where the substrate mount is located with to have a thermal  
conductivity different from a that of a second section along the gas flow path other than the  
first section along the gas flow path, in order to lower a thermal diffusion effect of the source  
gas in the first section.

2. (Canceled)

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3. (Previously presented) The semiconductor film formation device according to claim 1,  
wherein:

the first section comprises an interspace formed between the reaction vessel and the  
thermal conductivity adjusting member.

4. (Currently amended) The semiconductor film formation device according to claim 3,  
wherein:

the interspace comprises ~~has a variable~~ varying height along the gas flow path.

5. (Currently amended) The semiconductor film formation device according to claim 1,  
wherein:

the first section comprises a material ~~whose~~ having a thermal conductivity that is  
different from that of a thermal conductivity of a material of the second section other than the  
first section.

6. (Currently amended) A semiconductor film formation device, comprising:

a reaction vessel that includes a gas flow path to allow a source gas to pass through  
and a substrate mount site on a side of the reaction vessel to mount a substrate provided in the  
gas flow path ~~to mount a substrate;~~

a heater that is disposed outside of the reaction vessel on the same side of the  
reaction vessel as the substrate mount site is located, the heater thereby being and close to the  
substrate mount site; and

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a cooling device ~~that is~~ to control an internal temperature of the reaction vessel in a section of the gas flow path wherein the substrate mount site is located, the cooling device disposed outside of the reaction vessel ~~and on a side~~ opposite to the heater ~~to control an internal temperature of the reaction vessel,~~

wherein ~~the reaction vessel comprises a first section with a wall thickness of the~~ reaction vessel is smaller than a in the section along the gas flow path where the substrate mount site is located other than the first section, thereby forming to form an interspace between the reaction vessel and the cooling device to lower a thermal diffusion effect of the source gas in the ~~first section of the gas flow at the location of the substrate mount site,~~

7. (Canceled)

8. (Currently amended) The semiconductor film formation device according to claim 6, wherein:

the interspace ~~comprises~~ has a variable height that varies along the gas flow path.

9. (Currently amended) A semiconductor film formation device, comprising:

a reaction vessel that includes a gas flow path to allow a source gas to pass through and a substrate mount site provided in the gas flow path to mount a substrate;

a heater that is disposed outside of the reaction vessel ~~and on a side~~ close to the substrate mount site;

a cooling device that is disposed outside of the reaction vessel ~~and on a side~~ opposite

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to the heater, ~~the cooling device controlling to control~~ an internal temperature of the reaction vessel in a vicinity of the substrate mount site;

a plate member that is disposed opposite to the substrate mount site in the gas flow path; and

a thermal conductivity adjusting member that is disposed between the cooling device and the plate member,

wherein the thermal conductivity adjusting member ~~comprises~~ provides a first section along the gas flow path with a thermal conductivity different from a second section along the gas flow path, ~~other than the first section along the gas flow path~~ to lower a thermal diffusion effect of the source gas in the first section.

10. (Canceled)

11. (Previously presented) The semiconductor film formation device according to claim 9 wherein:

the first section comprises an interspace formed between the reaction vessel and the thermal conductivity adjusting member.

12. (Currently amended) The semiconductor film formation device according to claim 11, wherein:

the interspace ~~comprises~~ has a ~~variable~~ height that varies along the gas flow path.

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13. (Currently amended) The semiconductor film formation device according to claim 11,  
wherein:

the first section comprises a material whose thermal conductivity is different from that  
of a the second section ~~other than the first section~~.

14. (Currently amended) A semiconductor film formation device, comprising:

a reaction vessel that includes a gas flow path to allow a source gas to pass through  
and a substrate mount site provided in the gas flow path to mount a substrate;

a heater that is disposed outside of the reaction vessel ~~and on a side~~ close to the  
substrate mount site;

a cooling device that is disposed outside of the reaction vessel ~~and on a side~~  
substantially directly opposite to the heater, to control an internal temperature of the reaction  
vessel in a vicinity of the substrate mount site; and

a plate member that is disposed opposite to the substrate mount site in the gas flow  
path,

wherein the reaction vessel ~~includes a wall thickness that is smaller in~~ comprises a  
first section along the gas flow path ~~with a wall thickness smaller than a wall thickness in a~~  
second section ~~other than the first section~~ such as to thereby form an interspace between the  
reaction vessel and the cooling device to lower a thermal diffusion effect of the source gas in  
the first section.

15. (Canceled)

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16. (Currently amended) The semiconductor film formation device according to claim 14,  
wherein:

the interspace ~~comprises~~ has a ~~variable~~ varying height along the gas flow path.

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